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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,877	03/10/2004	John T. Loper	EI-7630 (88348)	5081
65297	7590	06/19/2007	EXAMINER	
FITCH, EVEN, TABIN & FLANNERY			GOLOBOY, JAMES C	
P.O. BOX 18415			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20036			1714	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/797,877	LOPER ET AL.
	Examiner	Art Unit
	James Goloboy	1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 April 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 49-54 is/are allowed.
- 6) Claim(s) 1-48, 55-63 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 58-63 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Newly added claims 58-63 recite additive compositions comprising a succinimide or bis-succinimide, and a polyamine mixture. However, the specification and claims as originally filed only provide support for the reaction product of a succinic acylating agent and a polyamine mixture, not a composition with unreacted polyamine mixture as a separate component. Similarly, there is no support for the mole ratio of succinimide or bis-succinimide to amino groups recited in claims 60 and 63, only the mole ratio of acylating agent to amino groups. Should applicant argue that the polyamine mixture in claims 58-63 is residual unreacted polyamine, the rejection of claims 58-63 set forth in paragraph 3 below applies.

Claim Rejections - 35 USC § 103

3. Claims 1-7, 19-32, 48, and 57-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeGonia (U.S. Pat. No. 5,137,980) in view of Esche (U.S. Pat. No. 6,107,258).

The rejection of claims 1-7, 19-32, 48, and 57-63 are adequately set forth in paragraph 3 of the office action mailed 12/1/06.

As discussed in the prior office action, DeGonia and Esche disclose the reaction products of succinic acylating agents and polyamine mixtures. The reaction products of DeGonia and Esche comprise the succinimides of claim 58 (product of the acylating agent with a linear aliphatic polyamine) and claim 61 (product of the acylating agent with the aromatic amine of column 8 lines 18-38 of Esche). Further, it is the examiner's position that the resulting composition still contains unreacted polyamine mixture, and therefore meets the limitations of claims 58 and 61. DeGonia that linear polyamines are preferred aliphatic amine, meeting claims 59 and 62. As the mole ratio of succinimide or bis-succinimide to amino groups will depend on the ratio of acylating agent to amino groups used in the reaction, the rejection of claims 5, 23, and 30 in paragraph 3 of the prior office action applies to claims 60 and 63 as well.

4. Claims 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeGonia in view of Esche as applied to claims 1-7, 19-32, 48, and 57 above, and further in view of Tipton (U.S. Pat. No. 6,133,210).

This rejection is adequately set forth in paragraph 4 of the office action mailed 12/1/06.

5. Claims 41-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeGonia in view of Esche as applied to claims 1-7, 19-32, 48, and 57 above, and further in view of Lambert (U.S. Pat. No. 5,888,947)

This rejection is adequately set forth in paragraph 5 of the office action mailed 12/1/06.

6. Claims 8 and 33-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeGonia in view of Esche and Lambert as applied to claims 41-47 above, and further in view of Galka (U.S. Pat. No. 6,427,647).

This rejection is adequately set forth in paragraph 6 of the office action mailed 12/1/06.

7. Claim 55 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeGonia in view of Esche as applied to claims 1-7, 19-32, 48, and 57 above, and further in view of Carrick (US PG Pub. No. 2002/0147116 A1).

This rejection is adequately set forth in paragraph 7 of the office action mailed 12/1/06.

8. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeGonia in view of Esche as applied to claims 1-7, 19-32, 48, and 57 above, and further in view of Graham (U.S. Pat. No. 5,814,111).

This rejection is adequately set forth in paragraph 8 of the office action mailed 12/1/06.

Allowable Subject Matter

9. Claims 49-54 are allowed. The prior art does not disclose or suggest a polyisobutylene on the side group of the bis-succinimide, and the claims have now been placed in independent form.

Response to Arguments

10. Applicant's arguments filed 4/2/07 have been fully considered but they are not persuasive.

Applicant first argues that DeGonia and Esche do not describe or suggest a mixture of aliphatic and aromatic polyamines. However, DeGonia discloses that a mixture of polyamines can be used, and teaches specific examples of suitable aliphatic and aromatic polyamines, and Esche additionally provides motivation for including aromatic polyamines in the mixture.

Applicant further argues that DeGonia and Esche do not describe or suggest the mole ratio of aliphatic polyamine to aromatic polyamine, or the mole ratio of polyamine mixture to acylating agent. However, as stated in paragraph 3 of the office action mailed

12/1/06, DeGonia discloses numerous examples of succinimide preparation where more than 0.1 molar equivalents of polyamine are used per 1 molar equivalent of succinic anhydride, clearly suggesting that when a mixture of polyamines is used, more than 0.1 molar equivalents should be used per 1 molar equivalent of succinic anhydride. Additionally, the range of ratios of aliphatic polyamine to aromatic polyamine recited in claim 1 is so broad (about 10.0:0.1 to about 0.1:10.0) that it is strongly encompassed, and nearly identical to the range that is inherently disclosed by the teaching of DeGonia and Esche that a mixture of aliphatic and aromatic polyamines is usable. Therefore, the range is rendered obvious.

Applicant also argues that the use of Esche's claim 7 in the rejection of claims 6, 24, and 31 is improper, and cites *in re Benno*. Firstly, MPEP 2123 teaches that patents are relevant as prior art for all they contain. This includes the claims. *In re Benno* dealt with a case where a narrow claim had been considered by the board to be obvious solely on the basis of a broader prior art claim. That is significantly different from the current case, where Esche's claim 7 is combined with elements from the specification of Esche to teach specific components of the claimed compositions, and those components are further combined with the teachings of DeGonia to form the entire claimed composition. Moreover, the product of Esche's claim 7 is also described in the specification of Esche, at column 1 lines 13-32, column 3 lines 10-13, column 4 lines 29-50, and columns 8-11.

Finally, applicant argues in several places that the rejections are based on hindsight reasoning. It must be recognized that any judgment on obviousness is in a

sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In the office action mailed 12/1/06, the motivations for all combinations of prior art were taken from the references themselves, not applicant's own disclosure. Additionally, it is noted that ascertaining the differences between the prior art and the claims at issue is one of the inquiries required under *Graham v. John Deere*.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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JCG

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